

Serial No.: 09/508,094
Atty. Docket No.: P65124US0

IN THE CLAIMS:

Please amend/retain/add the claims as follows:

1. (Currently Amended) A method for treating a liquid effluent of animal manure pig slurry loaded with ~~significant quantities of~~ nitrogen and phosphorus, comprising the steps of:

a) adding a basic reagent to a said liquid effluent of pig slurry containing ~~significant quantities~~ more than 500 ppm of nitrogen as ammonia and phosphorus to obtain a pH in a ~~the~~ range from 8.5 to 13; ~~and~~

b) diffusing the basified liquid effluent of said pig slurry derived from stage a) in a stream of air having a flow rate of from about 6,000 to 15,000 m³/hr; and

c) removing up to 80% of the ammoniacal nitrogen from said pig slurry.

2. (Previously Presented) The method according to Claim 1, wherein the basic reagent added to stage a) is unslaked or slaked lime in the form of powder, paste or liquid.

3. (Previously Presented) The method according to Claim 2, wherein a concentration of lime Ca(OH)_2 is a maximum of 1,000 g/litre of reagent.

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4. (Previously Presented) The method according to Claim 3, wherein the stage b) is repeated a number of times for the same basified effluent.

5. (Previously Presented) The method according to Claim 4, wherein the number of repetitions is in the range from 1 to 50.

6. (Previously Presented) The method according to Claim 1, wherein at a start of stage b) an anti-foam catalyst is added, the quantity of which varies from 0 to 1 l/m³ of liquid effluent which is to be treated.

7. (Currently Amended) The method according to Claim 1, further comprising ~~a~~ in stage c) a step of sifting the liquid effluent derived from stage b).

8. (Currently Amended) A device for treating a liquid effluent of ~~pig slurry~~ animal manure loaded with ~~significant quantities of~~ nitrogen and phosphorus by adding a basic reagent to said liquid effluent to obtain a pH in the range from 8.5 to 13 ~~an~~ and diffusing the basified liquid effluent derived in a stream of air, the device comprising:

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a mixing reactor for bringing ~~a the~~ liquid effluent of pig slurry ~~loaded with significant quantities~~ containing more than 500 ppm of nitrogen as ammonia and phosphorus into contact with the basic reagent, said mixing reactor provided with an intake for said effluent and another intake for the basic reagent;

an ammonia-extracting reactor connected to the mixing reactor for extracting up to 80% of the ammoniacal nitrogen from said pig slurry; and

a tank for storing the treated liquid effluent derived from the ammonia-extracting reactor.

9. (Previously Presented) The device according to Claim 8, wherein the mixing reactor includes a device for measuring the pH of the medium connected to a means situated on the intake for the basic reagent for regulating automatically the added quantity thereof.

10. (Previously Presented) The device according to Claim 9, wherein the ammonia-extracting reactor or degassing reactor comprises a lower part collecting in particular the basified liquid effluent and an upper part in which there is situated a

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diffusion rack provided with nozzles, connected at the lower part to said reactor and including a feed pump, openings being arranged between the two parts to allow exterior air to enter, and an exhaust air fan being connected to said upper part.

11. (Previously Presented) The device according to Claim 10, wherein the diffusion rack includes nozzles of the cyclone type.

12. (Previously Presented) The device according to Claim 10, wherein the upper part of the degassing reactor is connected to a moisture-reducing unit.

13. (Previously Presented) The device according to Claim 12, further comprising a washing tower connected to the moisture-reducing unit allowing the ammonia to be collected or eliminated.

~~14. (New) The method according to Claim 1, wherein said~~
method removes approximately 40% of said ammoniacal nitrogen from said pig slurry with a slurry flow rate of approximately 3-10 m³ per hour.

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15. (New) The method according to Claim 1, wherein said method removes approximately 60% of said ammoniacal nitrogen from said pig slurry with a slurry flow rate of approximately 2-8 m³ per hour.

16. (New) The method according to Claim 1, wherein said method removes approximately 80% of said ammoniacal nitrogen from said pig slurry with a slurry flow rate of approximately 1-4 m³ per hour.

17. (New) The method according to Claim 1, wherein said pig slurry contains approximately 1800 ppm of nitrogen as ammonia.

18. (New) The method according to Claim 17, wherein said method removes approximately 40% of said ammoniacal nitrogen from said pig slurry with a slurry flow rate of approximately 3-10 m³ per hour.

19. (New) The method according to Claim 17, wherein said method removes approximately 60% of said ammoniacal nitrogen from said pig slurry with a slurry flow rate of approximately 2-8 m³ per hour.

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20. (New) The method according to Claim 17, wherein said method removes approximately 80% of said ammoniacal nitrogen from said pig slurry with a slurry flow rate of approximately 1-4 m³ per hour.